

REMARKS

Claims 1-11 and 18-22 are pending in the application and stand rejected, claims 15-17 and 23 having been canceled by the above amendments. Claim 21 has been amended merely to copy preamble language into the body of the claim. Entry of the above amendments is proper in the instant case as the amendments put the application in condition for allowance or at least put the application in better condition for Appeal.

Reconsideration of the outstanding rejection in view of following arguments is earnestly solicited.

STATEMENT UNDER 1.113(b)

The undersigned representative would like to thank the Examiner for the courtesy of the telephone interview that was conducted on January 14, 2004. It is particularly appreciated that the interview was both scheduled and completed on very short notice.

During the interview the rejection of claim 1 under 35 U.S.C. 103 was discussed. The arguments made by the undersigned representative during the telephone interview are incorporated below under the section heading “REJECTIONS UNDER 35 U.S.C. 103”, which are incorporated into this 1.113(b) statement by reference. During the interview no agreement was reached as to the allowability of claim 1.

REJECTIONS UNDER 35 U.S.C. 103

The Examiner has rejected claims 1-11 and 18-22 under 35 U.S.C. 103 as being unpatentable over Application Figures 1 and 2 and the associated text in view of Lehman. The rejections propose to modify the structure of Figure 2 in view of Lehman. Applicants respectfully submit that the pending claims are patentable over the proposed combination for at least the reason that the proposed combination fails to disclose each and every element recited in the claims.

Applicants’ invention relates to frontside to backside alignment. Independent claims 1 and 7 recite a frontside to backside alignment structure by reciting that the front surfaces of the first and second substrates each face the same direction, in contrast to frontside to frontside alignment in which front surfaces oppose each other. Specifically, claims 1 and 7 recite “a first substrate comprising a front surface which faces a first direction, the front surface comprising at least one micro-component and at least one depression... [and] a second substrate comprising a

front surface which faces the first direction, the front surface comprising at least one micro-component disposed thereon and at least one depression...”. Independent claim 18 recites “providing first and second substrates each comprising micro-components disposed thereon and a front surface comprising at least one depression which faces the same direction... positioning the first and second substrates in stacked relation relative to another such that the front surfaces face the same direction...”. Further, independent claim 21 recites “providing first and second substrates each comprising at least one micro-component disposed on a front surface that comprises at least one depression disposed thereon which faces a first direction...”

Applicants respectfully submit (as was set forth during the above-referenced interview) that at least each of the above-quoted features is missing from the proposed combination of Figure 2 with Lehman for the following reasons.

It is noted that the Office Action states that “Figure 2 depicts the micro-components as lenses 50 and grooves 32...” Hence, Figure 2 fails to disclose or suggest at least the feature of first and second substrates each comprising at least one micro-component and at least one depression, as reflected in the above quoted language of independent claims 1, 7, 18, and 21.

Turning then to Lehman, Lehman discloses three substrates numbered 19, 25, and 20. Substrate 19 cannot be either the first or second substrates as claimed in independent claims 1, 7, 18, and 21 for at least the reason that substrate 19 does not comprise both at least one micro-component and at least one depression. Furthermore, the remaining substrates, substrates 25 and 20, even if combined with the structure of Figure 2 do not disclose or suggest the first and second substrates as claimed in claims 1, 7, 18, and 21 for several reasons.

First, claims 1, 7, 18, and 21 recite that each of the first and second substrate comprises a depression. Substrate 25 of Lehman contains no depression. The Office Action takes the position that “it is well known in the art... to use micromachined grooves and alignment spheres... and to substitute these positioning features for those utilized by Lehman.” Applicants do not concede point. However, assuming for sake of argument only that it were well known in the art to substitute micromachined grooves and alignment spheres for the slot 23 and key 16 of Lehman, such a modification would not supply the elements missing from Figure 2 and present in claims 1, 7, 18, and 21. Specifically, substrates 20 and 25 cannot disclose or suggest the first and second substrates as claimed in claims 1, 7, 18, and 21 because the front surfaces of

substrates 20 and 25 that contain the slot 23 and key 16 do not face the same direction. The front faces of substrates 20 and 25 containing the slot 23 and key 16 are disposed in opposing relation, in frontside to frontside alignment.

That is, Lehman fails to disclose or suggest “a first substrate comprising a front surface which faces a first direction, the front surface comprising at least one micro-component and at least one depression... [and] a second substrate comprising a front surface which faces the first direction, the front surface comprising at least one micro-component disposed thereon and at least one depression...” as recited in claims 1 and 7. Similarly, Lehman fails to disclose or suggest the steps of “providing first and second substrates each comprising micro-components disposed thereon and a front surface comprising at least one depression which faces the same direction... positioning the first and second substrates in stacked relation relative to another such that the front surfaces face the same direction...” as recited in claim 18. Further, Lehman fails to disclose or suggest “providing first and second substrates each comprising at least one micro-component disposed on a front surface that comprises at least one depression disposed thereon which faces a first direction, [and] ... positioning the first and second substrates in stacked relation relative to one another such that the front surfaces face said first direction...” as recited in claim 21.

Hence, Lehman fails to disclose or suggest at least the above-noted elements which are also missing from the disclosure of Figure 2. Moreover, Lehman does not even address frontside to backside alignment. In Lehman, frontside to frontside alignment is effected. Therefore, for at least these reasons the proposed combination of Lehman with Figure 2 fails to disclose each and every element recited in claims 1, 7, 18, and 21. Accordingly, Applicants respectfully request that the rejection of independent claims 1, 7, 18, and 21, as well as claims 2-6, 8-11, 19-20, and 22 which depend respectively therefrom, be withdrawn.

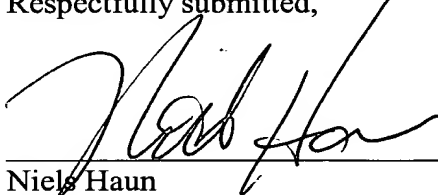
During the interview the Examiner did not disagree with Applicants’ argument that the above-mentioned elements of claim 1 were missing from both Figure 2 and Lehman. However, the Examiner indicated that he thought the rejection was proper, for the reasons he had set forth in the instant Office Action. Specifically, Applicants understood the Examiner to state that he found the Lehman device and Applicants’ embodiment of Figure 4 to perform the same overall function, and therefore the rejection was proper. This, however, is not the test for obviousness

Rely under 37 CFR 1.116 – Expedited Procedure - Technology Center 3726  
Application No. 09/923,842 Art Unit 3726  
Docket No. Shipley 03-11 ACT 230 Examiner David P. Bryant

under 35 U.S.C. 103. It is settled law that “[i]t is not pertinent whether the prior art device possesses the functional characteristics of the claimed invention if the reference does not describe or suggest its structure.” *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430, 1432, 1433 (Fed. Cir. 1990) (Emphasis Added.). In *In re Mills*, the Federal Circuit overturned an obviousness type rejection based on a reference that allegedly merely possessed the functional of the invention. Moreover, Applicants respectfully submit that it is an absolute requirement of a proper and sufficient rejection under 35 U.S.C. 103 that each and every element of the rejected claim be disclosed by the prior art combination. According to section 706.02 (j) of the MPEP, three basic criteria must be met in order to establish a *prima facie* case of obviousness under 35 U.S.C. 103, one of which is that the prior art reference (or references when combined) must disclose all the claim limitations. *cf.*, *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). see also MPEP 2143.03.

In view of the foregoing amendments and remarks, it is believed that the claims in this application are now in condition for allowance. Early and favorable reconsideration is respectfully requested. The Examiner is invited to telephone the undersigned in the event that a telephone interview will advance prosecution of this application.

Respectfully submitted,



Niels Haun  
PTO Reg. No. 48,488

DANN DORFMAN HERRELL & SKILLMAN  
A Professional Corporation  
1601 Market Street, Suite 720  
Philadelphia, PA 19103  
Phone: (215) 563-4100  
Fax: (215) 563-4044